REMARKS

This Amendment is submitted in response to the Office Action mailed on December 14, 2005. Claims 1 - 35 are pending, and all stand rejected at present, with the exception of claims 34 and 36, which are allowable if re-written. They have been re-written.

The fee for one independent claim is herewith submitted.

Claims 29 and 30 have been cancelled.

RESPONSE TO DRAWING REJECTION

On page 1 of the Office Action, the Examiner objected to the drawings filed on October 31, 2003. The Examiner's attention is respectfully directed to the replacement formal drawings which were filed March 4, 2004. If the replacement drawings filed March 4, 2004, do not overcome the Examiner's objection to the drawings, Applicants request that the undersigned be notified immediately.

RESPONSE TO ANTICIPATION REJECTIONS - PART I

Claims 27 and 28 were rejected on grounds of anticipation, based on Marcinkiewicz.

A Recitation of Claim 27

Claim 27(c) states that orthogonal components are obtained, **without computing the components**. For example, if two stator coils are present, and if they

are geometrically 90 degrees apart, then directly reading the currents in each will indicate the magnetic fields in each coil. Those fields can be represented as vectors, which are orthogonal components.

In contrast, if three stator coils are present, such direct reading without computation is not possible. A computation of the type described in connection with Applicants' 10 and 11 is required.

Office Action Admits Recitation is Missing

The Office Action admits that this claim recitation is absent from the reference. On page 7, lines 3 - 5, the Office Action states that, in the reference, the orthogonal components are obtained **through computation** (transforming). That is opposite to claim 27.

Therefore, the claim recitation of obtaining the orthogonal components **without** computation is not present in the reference.

The preceding applies to dependent claim 28.

RESPONSE TO ANTICIPATION REJECTIONS - PART II

Claims 13 - 17, 19, 21, 23, and 25 were rejected on grounds of anticipation, based on Kuwano.

Comment

The patent number of Kuwano given on page 5 of the Office Action (ie, 5,294,876) is incorrect. That patent lists one "Jonsson" as inventor, and no Kuwano is listed.

Three Kuwano patents were listed on the notice of references cited by the PTO. To ascertain which Kuwano reference the PTO is applying, the undersigned attorney attempted to telephone Examiner Patrick Miller on or about March 3, 2006. The undersigned attorney was informed that Examiner Miller was no longer with the group handling this application.

Since Examiner Miller could not be contacted, it is assumed that Kuwano 6,670,782 is being applied, because the Office Action, page 5, refers to

1) an "encoder" in Figure 3, and an encoder 90 appears in Figure 3 of Kuwano '782,

and

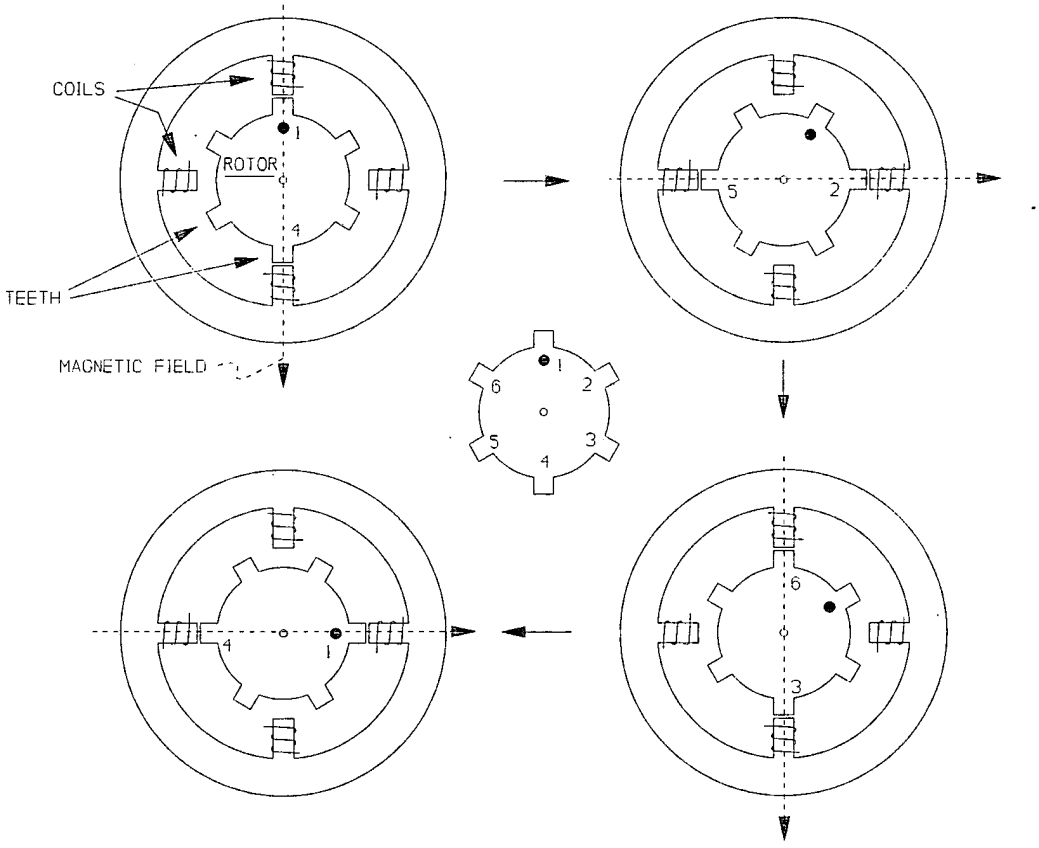
2) an element 22, which present in Figure 3 of Kuwano '782.

These two elements (encoder and element 22) do not appear in Figure 3 of the other two Kuwano patents.

If the PTO did not intend to apply Kuwano '782, Applicants request that the Office Action be re-issued, with an identification of the correct Kuwano patent.

Kuwano Reference

Kuwano discusses a stepper motor. Sketch 1, below, is a generalized illustration of a stepper motor.



The rotor of the motor is shown at the center of the Sketch. It contains six labeled teeth, and a reference dot on tooth 1.

At the upper left, current is applied to the coils at the 12 and 6 o'clock positions, creating a MAGNETIC FIELD, to which teeth 1 and 4 move into alignment.

At the upper right, current is applied to the coils at the 3 and 9 o'clock positions, creating a MAGNETIC FIELD, to which teeth 2 and 5 move into alignment. The rotation from the position shown at the upper left to the upper right is called one "step."

At the lower right, current is applied to the coils at the 12 and 6 o'clock positions, creating a MAGNETIC FIELD, to which teeth 3 and 6 move into alignment.

At the lower left, current is applied to the coils at the 3 and 9 o'clock positions, creating a MAGNETIC FIELD, to which teeth 1 and 4 move into alignment.

At least two significant features are clear. One, the stepper motor is not "synchronous." The rotor does not rotate in synchrony with the applied field. For example, when the applied field rotates 270 degrees (from the upper left of the Sketch to the lower left), the rotor only rotates 90 degrees. That is not "synchronous" operation.

The second significant feature is that the stator field in the stepper motor does not rotate continually. It jumps from position to position.

Kuwano Reference

The undersigned attorney finds Kuwano to be very confusing, but interprets Kuwano as follows.

In Kuwano's Figure 2, a d-axis is shown. That is the axis of the magnetic field of his rotor. (Column 3, lines 56, 57.)

At this time, Kuwano computes a new coordinate system, namely, the dp and dq axes, which is rotated from the d-axis by the angle labeled lower-case-delta. Kuwano then generates a stator current (actually a magnetic field, but it is common to refer to the field as a current) along the dp axis, which current is idpn*.

Since this current (field) is not aligned with the magnetic field of the rotor (which is on the d-axis), the rotor rotates in order to align itself with this current (field).

More precisely, this current idpn* has a component on the q-axis, which component is iqn* (the component on the d-axis is idn*). The component on the d-axis (iqn*) is initially orthogonal to the rotor field, which lies on the d-axis. This orthogonal component creates a torque, causing rotation.

But as the rotation occurs, the d-q axes also rotate. Thus, the component on the q-axis becomes progressively smaller, because the q-axis is approaching 90 degrees to the dp-axis, on which the stator field lies. So the torque becomes progressively smaller.

When the d-axis becomes aligned with the dp-axis, the q-axis becomes aligned with the qp-axis. Now, the (aligned) q- and qp-axes are both orthogonal to the (aligned)

d- and dp-axes. Since the stator current (field) idpn* lies on the dp-axis, the component of that current (field) on the perpendicular q- and qp-axes must be zero.

Therefore, the torque-producing component initially lies on the q-axis, and diminishes to zero when the q axis rotates into coincidence with the qp axis.

That was one step. Then, Kuwano rotates (mathematically) all the axes in his Figure 2, and the procedure repeats.

Two significant features of Kuwano are the following.

One, there is no Field Oriented Control, FOC. FOC implies creation of a continually rotating field vector, of selected magnitude, which is maintained at a desired phase angle with respect to the rotor field. This is explained in Applicants' Background of the Invention, and also at the web site www.copleycontrols.com/motion/downloads/pdf/Field-Oriented-Control.pdf," which contains the article "What is Field Oriented Control and What Good is it ?"

The stator field generated by Kuwano (vector idpn* in his Figure 2) is stationary. That is not FOC.

Kuwano's stator field may be rotated from one angle to another, but, at each angle, it is still stationary.

FOC generates a continually rotating stator field.

The second feature is that, because Kuwano's stator field (idpn*) is stationary, when the rotor rotates toward it, the component on the q-axis, which is orthogonal to the

rotor field and which generates the torque, diminishes as rotation occurs. Thus, the torque applied to the rotor begins at some value, and drops to zero. Then the process is repeated.

That is not FOC. FOC applies a constant torque to the rotor, although, of course, at different times, the torque may be changed. In Kuwano's motor, the torque necessarily drops to zero at the end of each step. That is not consistent with FOC.

Claim 13

Point 1

The preamble of the claim recites a Field Oriented Control, FOC, system. As explained above, Kuwano does not use FOC.

-- He has no continually rotating stator field. (His stator field is constant at each step. When it moves, it does so in stepwise fashion, not continuously.)

-- He has no continually rotating stator field, which is held at a phase angle with respect to the rotor. (As explained above, any such phase angle changes continually during each step.)

-- The torque applied to the rotor during each step changes. (In FOC, there are no steps, and torque is held constant, by

a constant stator field, at a constant phase angle with respect to the rotor, although, of course, the field and phase angle can be changed as circumstances require.)

Point 2

Claim 13 recites:

13. . . .

a) deriving data concerning behavior of the coils; and

b) based on the data, **computing position of the stator field vector**, without translating from an N-phase reference frame of the stator to an orthogonal reference frame, wherein N is greater than two.

Kuwano does not perform the recited "computing."

Kuwano infers angle of his rotor (theta-1 in his Figure 2) by counting the number of steps which have occurred so far. (Column 3, lines 56, 57; column 5, line 66 et seq.) Based on the inferred position of the rotor, he computes the data in his Figure 2 needed to determine what currents to apply to the two coils in motor 80 in his Figure 3, in order to generate the proper current on the dp-axis in his Figure 2, that is, current idpn*.

Thus, even if the computation of these currents is deemed to be computation of the stator field as claimed, the computation is not done in the claimed manner. Kuwano uses no input from his coils, as in claim 13(a).

Instead, in essence, he uses inferred rotor angle to deduce the needed stator field angle for any step. That is, he infers theta-1 (rotor angle) in Figure 2, based on the number of previous steps. Then he adds the lower-case-delta, to get the desired stator angle. That allows him to compute iqn* and idn* (on the d- and q-axes), from which he can compute the currents needed in his coils in motor 90 in his Figure 3.

That does not correspond to claims 13(a) and (b).

Applicants request, under 37 CFR § 1.104(c)(2) and 35 U.S.C. § 132, that the PTO specifically identify the claimed computation of the stator field vector in Kuwano.

Interim Conclusions

Kuwano does not show FOC, as claimed. He does not produce a continually rotating stator field which is held at a selected phase angle with respect to the rotor field.

Kuwano does not show one of the properties of FOC, namely, constant torque. Although torque can change in an FOC system, as when the motor encounters an increased load, it does not oscillate multiple times during every revolution, as in Kuwano.

Kuwano does not show the claimed computation of the stator field vector.

Point 3

Kuwano is non-enabling. For a reference to be anticipatory under section 102, the reference must be enabling. (See Patents by D. Chisum, sections 3.06(1)(a) and 304(1).)

Applicants point out that Kuwano may possess the presumption of being enabling as to **his own claims**. However, that presumption does not extend to enablement of **Applicants' claims**. Further, Applicants submit that the discussion herein rebuts the presumption.

Applicants' grounds for the assertion of non-enablement include the following.

FIRST GROUNDS

Kuwano requires inputs on lines 12 and 13 in his Figure 3. (Column 6, lines 22 - 28.) However, Kuwano explains neither (1) how he computes the signals nor (2) what the signals are intended to achieve, in order to allow others to compute the signals.

Further, he requires an input every step. For micro-stepping (column 3, line 16) of 360 steps per revolution, for example, he requires 720 pieces of data. Applicants submit this to be a significant amount of data which is missing, thereby making Kuwano non-enabling.

SECOND GROUNDS

When Kuwano's rotor becomes aligned with the dp-axis, the current on the q-axis drops to zero. Thus, torque is zero at that position. However, what keeps the rotor in place.

THIRD GROUNDS

Kuwano states that zero current exists on the qp axis. (Column 4, lines 53, 54.) Applicants fail to see how this is possible, since, clearly, in Kuwano's Figure 2, the applied current idpn* (on the dp-axis) has a component on the qp-axis.

CONCLUSION

Applicants thus submit that Kuwano is non-enabling.

Other Claims in Group

The preceding applies to the other claims in this group.

In addition, claims 23 and 25 state that only two types of transformation are present. Kuwano, column 6, line 29 et seq., refers to a third transformation. This is a transformation from data (e.g., command value idp* on line 12 in Figure 3) into a rotational coordinate system.

That is a transformation outside the two recited transformations.

RESPONSE TO OBVIOUSNESS REJECTIONS - PART I

Claims 2, 3, 7, and 8 were rejected as obvious, based on Kuwano.

Claim 2

Claim 2 recites:

> 2. System according to claim 1, wherein pulse-width modulation, PWM, is used to control magnitude of current in each phase,
>
> and
>
> the PWM applied to one phase is not simultaneous with the PWM applied to the other phase.

The Specification, paragraphs 120 et seq., explains one benefit of this claim. By making the PWM's non-simultaneous, the switches performing the PWM will not all draw current at the same time. Since capacitors will probably be used in the power supply, those capacitors can be made smaller (because they need supply less current), and thus smaller in size and less expensive. Also, less switching noise is created, because a smaller current surge occurs at each switching event.

The Office Action, page 10, relies on Official Notice. In response, the undersigned attorney respectfully traverses the Official Notice, and requests a citation of evidence showing the claim element(s) Noticed. (See MPEP § 2144.03.)

The Office Action, page 10, also asserts that use of PWM is well known. In response, Applicant traverses this assertion, and requests that a reference be cited in support of the assertion. (See MPEP § 2144.03.)

The Office Action, page 10, asserts that the claimed non-simultaneous feature is obvious, because simultaneous energization of two coils does not produce sufficient torque. Applicants point out that this is simply not correct in fact. Simultaneous energizing of two (or more) coils produces two (or more) magnetic fields. Those fields add vectorially. The torque produced depends on the angle between that vector sum and the rotor field.

MPEP § 2143.03 states:

> To establish prima facie obviousness . . . **all the claim limitations** must be taught or suggested by the prior art.

Claim 2 has not been shown in the prior art. Instead, the Office Action relies on Official Notice, etc. Applicants submit this to be insufficient.

Claims 3, 7, and 8

The preceding discussion applies to claims 3, 7, and 8.

RESPONSE TO OBVIOUSNESS REJECTIONS - PART II

Claims 5, 10, 24, 26, and 30 were rejected as obvious, based on Kuwano and Furukawa.

Point 1

The rationale for combining the references is to install Kuwano's stepper motor into a vehicle. However, that rationale does not lead to the claimed invention.

As explained above, Kuwano's stepper motor does not correspond to the claimed motor. Thus, even if Kuwano's stepper motor is installed into a vehicle, the claimed motor is not found.

Point 2

The Furukawa reference is cited for the proposition of installing a **stepper** motor into a vehicle. The claims do not recite a stepper motor. For example, the claims recite FOC, Field Oriented Control. As explained above, that is not found in a stepper motor.

Therefore, even if the references are combined, the claimed invention is not found.

Point 3

The rationale for placing Kuwano's stepper motor into Furukawa is that one obtains high resolution and precise control. However, the Office Action cites Furukawa as showing a stepper motor in a vehicle.

Thus, Furukawa, **by himself**, obtains the supposed high resolution etc., because he shows a stepper motor in a vehicle. There is no reason to substitute Kuwano's stepper motor in order to obtain the high resolution etc.

The goal of high resolution etc. does not, as a matter of logic, lead to a combination of references. Furukawa, by himself, shows a stepper motor in a vehicle, having the supposed desirable characteristics.

Point 4

The Office Action is substituting Kuwano's stepper motor for that of Furukawa. But no reason for the substitution has been given. A reason is required.

RESPONSE TO OBVIOUSNESS REJECTIONS - PART III

Claims 31 and 32 were rejected as obvious, based on Miller.

Point 1

Claim 31 recites:

> . . . the power source-power receiver having the characteristic that, when a 3-phase electric motor and Field Oriented Control implemented in a DSP are used to convert power from the source to the receiver, a computer program having N lines of code is required,
>
> and

c) means for converting power from the source to the receiver which requires 0.75N, or fewer, lines of code.

The Office Action relies on Official Notice to show these claim recitations. In response, the undersigned attorney respectfully traverses the Official Notice, and requests a citation of evidence showing the Noticed claim elements. (See MPEP § 2144.03.)

Point 2

One rationale for combining the Noticed subject matter with Miller is that greater efficiency is obtained. However, no definition of "efficiency" has been given. Thus, it is impossible to determine whether, in fact, "efficiency" has improved.

For example, a Cray computer can execute a computer program perhaps 10,000 times faster than a portable PC. But the Cray costs perhaps 10,000 times as much. Is the Cray more "efficient" ? A definition is required.

Point 3

Another rationale is that the Noticed subject matter is faster than analog circuitry. However, no evidence proving this proposition has been given.

Point 4

As a continuation of Point 3, Applicants point out that the Office Action presumes that the field oriented controller 110 in Miller is an analog device. However, Miller refers to US patent 5,027,048 as describing the controller 110. (Miller, column 3, line 43.)

Patent 5,027,048, column 13, line 60, states that the field oriented controller in question is a "digital computer."

Therefore, the factual basis used to support the teaching for combining the references is incorrect. The rejection cannot stand.

Point 5

The Office Action, bottom of page 11 and top of page 12, sets forth supposed facts known to the person skilled-in-the-art, as a rationale for the obviousness rejection.

MPEP § 706.02(j) states:

> Contents of a 35 U.S.C. 103 Rejection
>
> . . .
>
> To establish a prima facie case of obviousness, three basic criteria must be met.
>
> First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings.

> Second, there must be a reasonable expectation of success.
>
> Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations.
>
> The teaching or suggestion to make the claimed combination and the reasonable expectation of success **must both be found in the prior art and not based on applicant's disclosure**.

The Office Action has not shown the facts upon which it relies in the prior art, as required by this MPEP section.

RESPONSE TO OBVIOUSNESS REJECTIONS - PART IV

Claims 1, 4, 6, 9, 11, 12, 18, 20, 22, 29, 33, and 35 were rejected as obvious, based on Kuwano.

Claim 1

Claim 1 recites:

> 1. (Currently amended) A system (1) being powered by a battery which delivers a voltage V, and (2) effective for operation in a vehicle, comprising:
>
> a) a two-phase electric motor having
>
> i) a stator of the synchronous type and
> ii) two stator phases;

b) a field-oriented controller for controlling voltages applied to the phases, wherein

i) full battery voltage is available for application across each phase; ~~and~~

ii) all phase voltages are independently controllable; and

iii) a continually rotating stator vector is generated, of selected phase with respect to the rotor and of selected magnitude.

Point 1

As explained above, Kuwano does not show FOC, which is recited by the claim.

The amendment to the claim states that stator field rotates continuously and is maintained at a selected phase angle. Kuwano does not show that. (Of course, the phase angle and size of the stator field can be changed as conditions require.) This amendment is seen as non-necessary, because included in the recitation of FOC.

Point 2

As explained above, Kuwano is non-enabling. Thus, no expectation of success has been shown, indicating that the claim can be derived from the teachings of Kuwano.

MPEP § 706.02(j) states:

Contents of a 35 U.S.C. 103 Rejection

. . .

To establish a prima facie case of obviousness, three basic criteria must be met.

. . .

Second, there must be a reasonable expectation of success.

. . .

The . . . reasonable expectation of success must both be found in the prior art and not based on applicant's disclosure.

Remaining Claims

The discussion above applies to the remaining claims in this group.

Additional Comments re: Claims 33 and 35

Claims 33 and 35 recite two sinusoids having two different duty cycles.

(The amendment adding "different" is considered redundant. If two identical duty cycles were present, then only a **single** duty cycle, not two cycles, is considered present. Thus, the original recitation of "two duty cycles" is considered to refer to **different** duty cycles.)

One result of the different duty cycles is that the first set of switches which generate the first sinusoid will **not** close at the same time as the second set of switches

which generate the second sinusoid. Thus, any surging of current is reduced. The Specification, paragraph 120 et seq. explains this further.

Since this current is probably supplied by a power supply having anti-ripple capacitors, the size of the capacitors is reduced (ideally, cut in half), thus reducing cost and size.

This recitation has not been shown in the applied reference.

MPEP § 2143.03 states:

> To establish prima facie obviousness . . . **all the claim limitations** must be taught or suggested by the prior art.

Therefore, Applicants submit that Kuwano does not show the claims in question.

ADDITIONAL COMMENTS AND REQUESTS

One

The Office Action, page 7, first bullet, asserts that Kuwano shows FOC. Applicants request that the FOC in Kuwano be identified. This applies to the assertion on page 9, third bullet, regarding claim 29.

Two

The Office Action, page 7, first bullet, asserts that Kuwano shows a vehicle. Applicants request that the vehicle in Kuwano be identified.

Three

The Office Action, page 8, second bullet, invokes Official Notice. The undersigned attorney respectfully traverses the Official Notice, and requests a citation of evidence showing the Noticed subject matter. (See MPEP § 2144.03.) Applicants point out that Official Notice is not a substitute for a teaching that the Noticed subject matter be combined with Kuwano. A teaching is still required, and no teaching has been given.

Four

The Office Action, page 8, second bullet, relies on a hypothetical situation. The Office Action states that full battery voltage is available, if the switches are arranged in a special way. But hypothetical situations are not prior art. The rejection must be based on prior art.

Further, MPEP § 2143.01 states:

> FACT THAT REFERENCES **CAN BE** COMBINED OR MODIFIED IS NOT SUFFICIENT TO ESTABLISH PRIMA FACIE OBVIOUSNESS
>
> The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination.
> . . .
>
> FACT THAT THE CLAIMED INVENTION IS **WITHIN THE CAPABILITIES** OF ONE OF ORDINARY SKILL IN THE

ART IS NOT SUFFICIENT BY ITSELF TO ESTABLISH PRIMA FACIE OBVIOUSNESS

A statement that modifications of the prior art to meet the claimed invention would have been "well within the ordinary skill of the art at the time the claimed invention was made" because the references relied upon teach that all aspects of the claimed invention were individually known in the art is not sufficient to establish a prima facie case of obviousness without some objective reason to combine the teachings of the references.

Applicants point out that the PTO's reasoning, in relying on the hypothetical situation, appears to be identical to the type of reasoning which is prohibited by this MPEP section.

Five

The Office Action, page 8, fourth bullet, states that if battery voltage is decreased, then the duty cycle in Kuwano is increased. However, the passage in Kuwano cited in support (column 1, lines 27 - 30) does not support that proposition. Nor do the corresponding passages in the other two Kuwano references.

RESPONSE TO CLAIM OBJECTIONS

Point 1

In response to the objection on page 3, first bullet, Applicants point out that the claim language states that the PWMs are **not required to be simultaneous**. They may

be, or they may not be. The fact that "the PWM is or is not simultaneous" is simply not relevant to the claim language.

Point 2

In response to the objection on page 3, second bullet, the undersigned attorney points out that N refers to a number of phases. He is not prepared to state categorically whether a fractional phase can exist.

Further, limiting N to integers provides an avenue for an infringer to avoid infringing. For example, if two coaxial coils cooperate to form one phase, is each coil 1/2 of a phase ? If one coil burns out, is 1/2 phase then present ?

Point 3

In response to the objection on page 3, third bullet, Applicants point out that the claim language seems correct. A method within a specific context is recited.

MPEP § 2173.01 states:

> [A]pplicants are their own lexicographers.
>
> They can define in the claims what they regard as their invention essentially in whatever terms they choose so long as the terms used are not used in ways that are contrary to accepted meanings in the art.
>
> . . .

> A claim may not be rejected solely because of the type of language used to define the subject matter for which patent protection is sought.

Point 4

In response to the objection on page 3, fourth bullet, Applicants point out that the reference frames of claims 13 and 14 can be different. Thus, N can be different.

Point 5

In response to the objection on page 3, fifth bullet, Applicants point out that in claim 23, "wherein" refers to the "control system." Thus, the "only" transformations which occur are in that "control system." This applies to claim 25.

Point 6

In response to the objection on page 4, first bullet, Applicants point out that N is a number of lines of code. Whether N is an integer or not depends on the specific situation, and the method of counting employed. For example, a computer program can be said to be 55-1/2 lines long.

Further, N is used for purposes of comparison. N is compared with 0.75N. Thus, it does not matter whether N is an integer or not.

Point 7

In response to the objection on page 4, second bullet, Applicants point out that, in a three-phase motor, if the stator field is to be represented by the sum of two orthogonal vectors, then computation is required to obtain two vectors which sum to the stator field.

In contrast, in a two phase motor, if the two phases are orthogonal in space, then the two field vectors, one for each phase, can be read directly, without computation. The Specification, paragraph 82, explains this.

As to claim 28, Applicants point out that the two vectors just discussed are in a stationary coordinate system, in which, for example, one coil lies on the x-axis, and the other coil lies on the y-axis. If one wishes to obtain the equivalent vectors, which sum to the same resultant vector, in a rotating coordinate system, as in claim 28, then computation is required.

Applicant points out that claim 28 refers to computing "coordinates . . . in a rotating coordinate system" and those "coordinates" are of the "orthogonal components." The "orthogonal components" can have coordinates in an infinite number of different coordinate systems.

Point 8

In response to the objection on page 4, third bullet, Applicants point out that Applicants fail to understand the basis of the objection. Claim 31 recites a "characteristic,"

namely, that when FOC is used in a 3-phase system which converts power, a certain number (N) of code lines are required.

Then claim 31 states that when a "means" is used to convert power (eg, a 2-phase system), 0.75N lines of code, or less, are required.

Applicants fail to see any lack of clarity.

Point 9

In response to the objection on page 4, fourth bullet, Applicants point out that the 3-phase system is used to define a "characteristic." Then claim 32 states a feature of the "means," which is not part of the 3-phase system.

Point 10

In response to the objection on page 5, first bullet, Applicants point out that claim 32 states that the "means" "comprises" a 2-phase motor. It does not state that nothing else, such as something to store and operate code, is present in the "means."

Conclusion

For all the foregoing reasons and in view of the amended claims as now presented, Applicants believe all claims as now pending are not anticipated by the references cited by the Examiner, and accordingly, they should be allowed.

The Commissioner is hereby authorized to charge any additional fees under 37 C.F.R. 1.16 and 1.17 which may be required by this paper, or to credit any overpayment, to Deposit Account No. 50-1287. Applicants hereby provide a general request for any extension of time which may be required at any time during the prosecution of the application. The Commissioner is also authorized to charge any fees which have not been previously paid for by check and which are required during the prosecution of this application to Deposit Account No. 50-1287. (Should Deposit Account No. 50-1287 be deficient, please charge any further deficiencies to Deposit Account No. 10-0220).

Applicant invites the Examiner to contact the undersigned via telephone with any questions or comments regarding this case.

Reconsideration and favorable action are respectfully requested.

Respectfully submitted,

JACOX, MECKSTROTH & JENKINS

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